CLAIMS

1. Optical fiber cable (10), having a central axis (16) and comprising:
   - a number of optical fibers (12);
   - at least a core tube (11) containing the optical fibers;
   - a jacket (13) surrounding the core tube (11); and
   - at least one strength rod (14) spaced from the central axis (16),

   the cable having a twisting stiffness $G * J_P$, wherein G is the elastic shear modulus; and J_p is the polar moment of inertia of a cable section, the twisting stiffness $G * J_P$ being lower than, or equal to, 0,10 Nm^2.
2. Optical cable (10) according to claim 1, wherein it comprises at least two linearly extending, diametrically opposed, strength rods (14) that are at least partially embedded in the jacket (13).
3. Optical cable (10) according to claim 1 or 2, wherein the twisting stiffness $G * J_P$ is lower than, or equal to, 0,05 Nm^2.
4. Optical cable (10) according to any of the previous claims, wherein the twisting stiffness $G * J_P$ is lower than, or equal to, 0,02 Nm^2.
5. Optical cable (10) according to any of claims 2-4, wherein the polar inertia momentum given by the reinforcing rods $J_{p.r}$ is lower than, or equal to, $20 \cdot 10^{-12}$ m^4.
6. Optical cable (10) according to any of claims 2-5, wherein the polar inertia momentum given by the reinforcing rods $J_{p.r}$ is lower than, or equal to, $10 \cdot 10^{-12}$ m^4.
7. Optical cable (10) according to any of the previous claims, wherein when the cable is guided on a path formed by two bends spaced of 0.5 m, arranged on orthogonal planes and having a bend radius according to the minimum dynamic bending radius prescribed for the cable, the ratio (L_f / L_t) between the bending work (L_f) for bending the optical fiber cable around the two bends and the twisting work (L_t) for twisting the cable between the two bends is

higher than 30, preferably higher than 50, more preferably higher than 80 and still more preferably higher than 90.

8. Optical cable (10) according to any of the previous claims, wherein it comprises a lower bending plane and wherein a bending stiffness $E * J$ of the cable structure in the lower bending plane is between about 0,01 Nm^2 and 0,10 Nm^2, preferably between about 0,01 Nm^2 and 0,06 Nm^2.

9. Optical cable (10) according to any of claims 2-8, wherein a reciprocal distance of the axes of the strength longitudinal rods is between about 1,5 mm and 5,0 mm, preferably between about 2,0 mm and 4,0 mm.

10. Optical cable (10) according to any of claims 2-9, wherein the strength longitudinal rods (14) have a diameter preferably lower than, or equal to, about 1 mm, more preferably between about 0,4 mm and 0,7 mm.

11. Optical cable (10) according to any of preceding claims, wherein the jacket (13) has an outer diameter from about 3,0 mm to about 6,0 mm, preferably from about 4,0 mm to 5,0 mm and more preferably from about 4,0 to 4,5 mm.

12. Optical cable (10) according to any of claims, wherein the at least one strength rod (14) comprises Glass-Reinforced Plastic.

13. Optical cable (10) according to any of claims 1-11, wherein the at least one strength rods (14) comprises Aramid-Reinforced Plastic.

14. Optical cable (10) according to any of precedings claims, wherein the at least a strength rod (14) comprises filamentary strands of glass and/or aramid fibers.